



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,794	04/04/2002	Uwe Krohn	36-1557	1087
23117	7590	10/17/2007		
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER COLAN, GIOVANNA B	
			ART UNIT 2162	PAPER NUMBER
			MAIL DATE 10/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

OCT 17 2007

Technology Center 2100

Application Number: 10/089,794
Filing Date: April 04, 2002
Appellant(s): KROHN ET AL.

Chris Comuntzis
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/13/2007 appealing from the Office action mailed 12/04/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

WO 99/45487	BOWMAN	9-1999
5,963,940	LIDDY	10-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liddy et al., "Liddy" (U.S. Patent No. 5,963,940), and in view of Bowman et al., "Bowman" (WO Patent No. 99/45487).

Regarding Claim 7, Liddy discloses a method ...comprising:

(i) detecting submission by a user of a query term to an information retrieval tool, and a corresponding response from the retrieval tool (Abstract, "The user enters a query and the system processes the query to generate an alternative representation..."; "After processing the query, the system displays query information to the user, indicating the system's interpretation and representation of the content of the query. The user is then given an opportunity to provide input, in response to which the system modifies the alternative representation of the query. Once the user has provided desired input, the possibly modified representation of the query is matched to the relevant document database, and measures of relevance generated for the documents. A set of documents is presented to the user..."; col. 32, lines 46-48, "Matcher 55 takes

the QP-based query representation, either unmodified or modified by the user as described above, and finds suitably similar documents in a range of databases.”; Liddy);

(ii) detecting an indication by the user as to the relevance of a set of information identified in the response from the retrieval tool (Abstract, “A set of documents is presented to the user, who is given an opportunity to select some or all of the documents, typically on the basis of such documents being of particular relevance”; Liddy);

(iii) storing in a data store a reference to the set of information indicated as being relevant at (ii) (Col. 27, line 67 – col. 28, line 6, “...a number occur after the documents are retrieved (including retrieval and display criteria selection, the display of relevant documents in various formats, the marking of relevant documents, the construction of new, informed queries based on the contents of documents deemed highly relevant, and printing or storing marked documents...”; Liddy), and a record of the query term submitted by the user at (i) (Col. 32, lines 43-45, ‘The user can also click the “Return to Request” button 370i and modify the query’ wherein it is inherent that the query is stored in the system for the user to be able to go back to modify the query, wherein ‘query’ is analogous to ‘search criterion’; Liddy);

However, Liddy does not expressly disclose selecting and calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the proportion of users who identified the selected set of information and indicated that it was relevant; identifying ... a weighting in excess of a predetermined threshold; providing ... output ... by use of said identified query term.

On the other hand, Bowman discloses the steps of:

(iv) selecting one or more: sets of information referenced in the data store; (v) calculating, calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the proportion of users who, on submitting the query term to the information retrieval tool, identified the selected set of information and indicated that it was relevant (Figures 3, 4, and 8, steps 803, and 804, Page 3, lines 6-9, "The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term"; wherein the step including scores in a rating tables corresponds to the step of weighting as claimed; Bowman);

(vi) identifying weighted query terms from those calculated in that exceed a predetermined threshold (Figure 6, Page 3, lines 18-21, "On the other hand, in embodiments in which the goal is to select a few items in the query result having the **largest ranking values**, the facility preferably loops through the terms in the query, and, **for each item, identifies the top few rating scores for that term and any item** "; page 14, line 17 – page 15, line 3, "In step 806, the facility combines the scores for the current item to generate a ranking value for the item. As an example, with reference to Figure 6, in processing datum having item identifier "1883823064", the facility combines the score "116" extracted from entry 602 for this item and the term "dynamics", and the score "211" extracted from entry 605 for this item and the term "human". Step 806 preferably involves summing these scores. These scores may be combined in other

ways, however. In particular, scores may be adjusted to more directly reflect the number of query terms that are matched by the item, so that items that match more query terms than others are favored in the ranking. In step 807, if any items remain to be processed, the facility loops back to step 801 to process the next item, else the facility continues in step 808. In step 808, the facility displays the items identified in the query result in accordance with the ranking values generated for the items in step 806. Step 808 preferably involves sorting the items in the query result in decreasing order of **their ranking values, and/or subsetting the items in the query result to include only those items above a threshold ranking value, or only a predetermined number of items having the highest ranking values.** After step 808, these steps conclude"; Bowman); and

(vii) providing an information retrieval tool search result output obtained by use of said identified weighted query terms (Page 3, lines 21-23, "The facility then combines the scores identified for each item to **generate ranking values for a relatively small number of items,** which may include items not identified in the query result"; Bowman¹).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a method of selecting and calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the proportion of users who identified the selected set of information and indicated that it was relevant; identifying ... a weighting in excess of a

predetermined threshold; providing ... output ... by use of said identified query term, as disclosed in Bowman into the method of accessing sets of information as disclosed by Liddy, to provide a technique for displaying items relating to at least some of the terms in a query even when no items completely match the query (Page 2, lines 13-15; Bowman). One of ordinary skill in the art would be motivated to make the aforementioned combination with reasonable expectation of success.

Claim 8 is rejected for the reasons set forth hereinabove for claim 7, and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at (iv), each said selected set of information is representative of the same category of information (Liddy, Figure 7) and wherein the method includes (viii) using said identified one or more query terms to search for further sets of information in said category of information (Bowman, page 3, line 18- page 4, line 3).

Claim 9 is rejected for the reasons set forth hereinabove for claim 7; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at (ii), said indication comprises accessing a set of information identified in the response from the retrieval tool (Abstract; Liddy).

Claim 10 is rejected for the reasons set forth hereinabove for claim 9; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at

¹ Additionally, the combination of Liddy in view of Bowman discloses the details of this feature (Page 14,

(ii), detecting said indication includes measuring the time spent by the user in accessing said set of information (page 4, lines 15-16; Bowman).

Claim 11 is rejected for the reasons set forth hereinabove for claim 10; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at step-(iv), said weighting is adjusted according to the measurements of time spent by users in accessing the respective selected set of information (Page 4, lines 13-16; Bowman).

Claim 1 is rejected on grounds corresponding to the reasons given above for claim 7; and furthermore the combination of Liddy and Bowman discloses an apparatus having:

a computer having a user interface providing access to at least one information retrieval tool (Col. 4, lines 13-15, "FIG. 8 is a screen shot showing the general features common to most screens used in the graphic user interface (GUI)"; Col. 7, lines 35-46, "User interface software 70 allows the user to interact with the system. The user interface software is responsible for accepting queries, which it provides to processing engine 50. The user interface software also presents the retrieved documents as a result of the query to the user and reformats the output in response to user input. User interface software 70 is preferably implemented as a graphical user interface (GUI), and will often be referred to as the GUI"; Liddy);

lines 27 – 29, "the facility **displays the items identified in the query result** in accordance with the

a computer store for recording data relating to information retrieval by users (Col. 6, lines 60-67, "The server's storage subsystem 35, as shown in FIG. 1, maintains the basic programming and data constructs that provide the functionality of the DR-LINK system. DR-LINK software is designed to (1) process text stored in digital form (documents) or entered in digital form on a computer terminal (queries) to create a database file recording the manifold contents of the text, and (2) match discrete texts (documents) to the requirements of a user's query text."; Liddy).

Claims 2 and 3 are rejected on grounds corresponding to the reasons given above for claims 9 and 7.

Claim 4 is rejected for the reasons set forth hereinabove for claim 1, and furthermore the combination of Liddy in view of Bowman discloses an apparatus, wherein said analysis means are further arranged to receive one or more query terms from said user interface, to identify a second group comprising one or more sets of information referenced in said store for which said received one or more query terms have a weighting in excess of said predetermined threshold, and to identify one or more further recorded query terms having, in respect of each member of said second group, a weighting in excess of said predetermined threshold (Page 3, line 18- page 4, line 3; Bowman).

ranking values generated for the items in step 806 ...", Bowman).

Claim 5 is rejected for the reasons set forth hereinabove for claim 1; and furthermore the combination of Liddy in view of Bowman discloses an apparatus wherein said **one or more query terms** include words or word phrases and wherein said monitoring means are operable to record words from said one or more search criteria in a stemmed form (Col. 5, lines 8-15; Liddy).

Claim 6 is rejected for the reasons set forth hereinabove for claim 1; and furthermore the combination of Liddy in view of Bowman discloses an apparatus wherein said analysis means include grouping means to identify one or more information categories represented by sets of information referenced in said store, to associate one or more of said referenced sets of information representative of the same information category, and wherein said analysis means are arranged to identify those recorded query terms having, for each of said associated sets of information, a weighting in excess of said predetermined threshold (page 3, line 18- – page 4, line 3, page 14, line 17 – page 15, line 3; Bowman).

Claim 12 is rejected for the reasons set forth hereinabove for claim 1; and furthermore the combination of Liddy in view of Bowman discloses an apparatus wherein said group comprises at least one set of information representative of a particular category of information (Figure 16; Liddy).

Regarding Claim 13, Liddy discloses a method ...comprising:

for each and every item of stored information, maintaining a store of query terms previously used by plural users (Col. 32, lines 43-45, 'The user can also click the "Return to Request" button 370i and modify the query' wherein it is inherent that the query is stored in the system for the user to be able to go back to modify the query, wherein 'query' is analogous to 'search criterion'; Liddy) and

However, Liddy does not expressly disclose a store of query terms individually weighted to represent the proportion of prior users who are considered to have found a respectively associated stored item of information to be relevant to a particular query term, and providing an information retrieval tool output to a user of a user-input query term using said store of weighted search criteria.

On the other hand, Bowman discloses limitations of:

a store of query terms individually weighted to represent the proportion of prior users who are considered to have found a respectively associated stored item of information to be relevant to a particular query term (page 3, lines 6-9, "The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term"; Figures 3 and 4, wherein the scores are analogous to weighting; Figure 8, steps 803, 804); and

providing an information retrieval tool output to a user of a user-input query term using said store of weighted query terms (Page 3, lines 21-23, "The facility then combines the scores identified for each item to **generate ranking values for a**

relatively small number of items, which may include items not identified in the **query result**"; Bowman²).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a method of a store of query terms individually weighted to represent the proportion of prior users who are considered to have found a respectively associated stored item of information to be relevant to a particular query term, and providing an information retrieval tool output to a user of a user-input query term using said store of weighted search criteria, as disclosed in Bowman into the method of accessing sets of information as disclosed by Liddy, to provide a technique for displaying items relating to at least some of the terms in a query even when no items completely match the query (Page 2, lines 13-15, Bowman). One of ordinary skill in the art would be motivated to make the aforementioned combination with reasonable expectation of success.

Claim 14 is rejected for the reasons set forth hereinabove for claim 13; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, said weighted query terms represent a binary-valued thresholded determination (Figures 3 and 4, wherein the scores are analogous to weighting; Figure 8, steps 803, 804; Bowman).

² Additionally, the combination of Liddy in view of Bowman discloses the details of this feature (Page 14, lines 27 – 29, "the facility **displays the items identified in the query result** in accordance with the ranking values generated for the items in step 806 ...", Bowman).

Claims 15 and 16 are rejected on grounds corresponding to the reasons given above for claims 13 and 14.

(10) Response to Argument

Whether claims 1 – 16 are obvious under 35 USC § 103 over Liddy et al. in view of Bowman et al.

Appellant argues that; “nowhere does the cited passage of Bowman indicate that users actually identify whether the reference set of information was relevant”.

Examiner respectfully disagrees. The combination of Liddy in view of Bowman does disclose that users indicated that referenced set of information was relevant (Abstract, “A set of documents is presented to the user, who is given an opportunity to select some or all of the documents, typically on the basis of such documents being of particular relevance”, Liddy; and (57), Abstract, lines 5 – 9, “...The facility identifies as most relevant those items having the highest ranking values.”, Bowman).

Appellant argues that; “the references, taken singly or in combination, do not teach or suggest calculating the proportion of users who indicated that the retrieved information was relevant”.

Examiner respectfully disagrees. The combination of Liddy in view of Bowman does disclose calculating the proportion of users who indicated that the retrieved information was relevant (Figures 3, 4, and 8, steps 803, and 804, Page 3, lines 6-9,

"The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term"; wherein the step including scores in a rating tables corresponds to the step of weighting as claimed; Bowman). To further clarify, Examiner makes note that the term Proportion, as well known in the art, is defined as a relationship between quantities such that if one varies then another varies in a manner dependent on the first. Therefore, Examiner interprets that since Bowman discloses scores in a rating table (which correspond to the weighting claimed) that reflect how often users have selected, then such scores (weighting) are proportional to the amount of users who selected the information. Wherein the more users selects the information, the higher the score in the rating table. See for example, the Bowman reference, "score" in Fig. 3, Page 9, lines 7 – 14, "...For example, entry 302 identifies the score '22' for the term 'dynamics' the item having item identifier '1883823064'. It can be seen by examining entries 301-303 that, in query results produced from queries including the term 'dynamics', the item having item identifier '1883823064' has been selected by users more frequently that item having item identifier '9676530409'...". Also see in Bowman, (57), Abstract, "The facility then produces a ranking value for at least a portion of the items identified in the query result by combining the relative frequencies with which users selected that item from the query results generated from queries specifying each of the terms specified by the query. The facility identifies as most relevant those items having the highest ranking values". Once again, the scores

(weighting) indicate the proportion of the users who indicated that the retrieved information was relevant.

Appellant argues that; "nowhere does the system even contemplate that users would identify which pieces of retrieved information are actually relevant and then create weighting factors based on the users' actions."

Examiner respectfully disagrees. In response to appellant's argument that the references fail to show certain features of appellant's invention, it is noted that the features upon which appellant relies (i.e., "users would identify which pieces of...are actually relevant" and "create weighting factors based on the users' actions") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 2162

For the above reasons, it is believed that the rejections should be sustained.

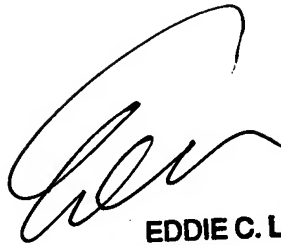
Respectfully submitted,



Giovanna B. Colan
Examiner
AU 2162

Conferees:

Eddie Lee
TQAS/Appeals Specialist
TC 2100



EDDIE C. LEE
SUPERVISORY PATENT EXAMINER

John E. Breene
Supervisor Patent Examiner
AU 2162



An appeal conference was held on 02 October 3, 2007, and it was agreed to proceed to the board of appeals.